Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
		10/766,839	SUZUKI, TAKAMUNE
Office Action Summary		Examiner	Art Unit	
		Robert M. Timblin	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 October 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6 and 8-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-6 and 8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *7/31/07, 11/6/07*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20071204

DETAILED ACTION

This Office Action corresponds to application 10/766,839. Claims 1, 3-6, and 8-14 have been examined and are currently pending.

Response to Amendment

Applicant herein amends claims 6 and 14. No claims have been added and no claims have been cancelled in this amendment. Accordingly, claims 1, 3-6 and 8-14 remain pending prosecution.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 7/31/2007 and 11/06/2007 are being considered by the examiner.

Claim Objections

The previous claim objection to claim 14 has been withdrawn in light of Applicant's amendments.

Claim Rejections - 35 USC § 101

The previous 35 U.S.C 101 rejection has been withdrawn in light of Applicant's amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated

by Ims et al. ('Ims' hereafter) (U.S. Patent 6,505,200). In the following citations, Ims

teaches:

With respect to claim 1, An application server that retrieves data from a database

using a retrieval request, which includes a retrieval condition, received from a terminal

and transmits the data retrieved as a retrieval result to the terminal, comprising:

a cache memory (300) that stores in a correlated form (col. 9 line 53-65, col. 14

line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) in the execution script *of*

the cached object to return a fresh copy of data values to...re-populate the object's

output properties (retrieval result). That is, Ims teaches storing the retrieval logic with

the result in the same object to describe storing them in correlated form (e.g. they are

stored together and are thus correlated)) the retrieval condition and the retrieval result

(figures 3A-B, col. 5 line 64-67);

an update condition setting unit (col. 13 line 33, cache manager) that sets a

cache update condition that indicates when the cache memory is to be updated (col. 13

line 31-65 cache policy), wherein the database update condition includes a number of

data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

an update processing unit (col. 16 line 58-62; i.e. processing an update) that reads the retrieval condition from the cache memory (300) upon fulfillment of the cache update condition (col. 16 line 58-67; cache policy), retrieves data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updates the retrieval result in the cache memory (300) corresponding to the retrieval condition (col. 17 line 1-15).

With respect to claim 3, the application server according to claim 1, wherein, when searching the database, the update processing unit acquires a database update condition that indicates when the database is updated and the update condition setting unit sets the cache update condition based on the database update condition acquired (col. 5 line 10-20, col. 10 line 8-15, and col. 13 line 65-col. 14 line 1-7).

With respect to claim 4, the application server according to claim 1, wherein a user sets the cache update condition (col. 10 lines 37-48).

With respect to claim 5, the application server according to claim 1, wherein the update processing unit sets next and subsequent cache update conditions using a date and a time of the retrieval result updated (col. 15 lines 52-60).

With respect to claim 6, A computer readable medium storing a cache program that stores a retrieval request that includes a retrieval condition and that is received from a terminal and a retrieval result retrieved using the retrieval request in a correlated form in a cache memory, reads a retrieval result from the cache memory when a retrieval request identical to the retrieval request stored in the cache memory is received, and that makes a computer execute:

setting a cache update condition (col. 9 line 53-65, col. 14 line 51-67) that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy), wherein the database update condition includes a number of data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

reading the retrieval condition from the cache memory upon fulfillment of the cache update condition (col. 16 line 58-67), retrieving data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updating the retrieval result in the cache memory corresponding to the retrieval condition (col. 17 line 1-15).

With respect to claim 8, the cache program according to claim 6, further comprising acquiring a database update condition (col. 15 line 17-25), when searching the database, that indicates when the database is updated, and the setting includes setting the cache update condition based on the database update condition acquired (col. 15 lines 30-42).

With respect to claim 9 the cache program according to claim 6, wherein the setting includes setting of the cache update condition by a user (col. 10, lines 38-46).

With respect to claim 10, the cache program according to claim 6, wherein the setting includes setting next and subsequent cache update conditions using a date and a time of the retrieval result updated (col. 15 line 59-67).

With respect to claim 11, An application server system comprising:

a plurality of application servers (figure 2, and 5 and col. 9 line 35-40), each of which retrieves data from a database using a retrieval request (col. 5 line 9-30), which includes a retrieval condition, received from a terminal and transmits the data retrieved as a retrieval result to the terminal, each application server including (abstract and figure 3A-3B).

a cache memory (drawing reference 300) that stores in a correlated form (col. 9 line 53-65, col. 14 line 51-67) the retrieval condition and the retrieval result (figures 3A-B, col. 5 line 64-67);

an update condition setting unit (col. 13 line 33) that sets a cache update condition that indicates when the cache memory is to be updated), wherein the database update condition includes a number of data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

an update processing unit (col. 16 line 58-62) that reads the retrieval condition from the cache memory upon fulfillment of the cache update condition (col. 16 line 58-

67), retrieves data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updates the retrieval result in the cache memory corresponding to the retrieval condition (col. 17 line 1-15).

With respect to claim 12, the application server system according to claim 11, wherein the cache update condition of each application server differs from the cache update condition of any other application server (col. 15 line 65-67).

With respect to claim 13, the application server system according to claim 11, wherein the cache update condition of all the application servers is identical (figure. 3B, and col. 18 line 30-35).

With respect to claim 14, A cache update method comprising:

storing a retrieval request received from a terminal that includes a retrieval condition and a retrieval result (figures 3A-B, col. 5 line 64-67) retrieved using the retrieval request int a correlated form (col. 9 line 53-65, col. 14 line 51-67) in a cache memory (drawing reference 300);

reading the retrieval result from the cache memory when a retrieval request is identical to the stored retrieval request (col. 5 line 9-45);

setting a cache update condition based on a database update condition that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy);

reading the retrieval condition from the cache memory upon fulfillment of the

cache update condition (col. 16 line 58-67);

retrieving data as the retrieval result from the database using the retrieval condition

(col. 16 line 63-67); and updating the retrieval result in the cache memory

corresponding to the retrieval condition (col. 17 line 1-15).

Response to Arguments

Applicant's arguments in the remarks filed 10/1/2007 have been fully considered

but they are not persuasive.

On page 5 to page 8 of the remarks, Applicant argues the cited lms (U.S. Patent

6,505,200) reference fails to teach the claimed "a cache memory that stores in a

correlated form the retrieval condition and the retrieval result" (i.e. the second clause of

claims 1 and 11. The Examiner disagrees given the following:

In column 9 of lms, it is described that a cached object component provides for

storing, and for automatically refreshing the objects (lms, col. 9 line 58-59).

Furthermore, lms illustrates a cache memory (figure 3A) that stores these objects. In

column 14, lines 8-16, lms describes further figure 3A. Therein, in part, lms described

that once an object is populated, it is then stored in the cache 300 (col. 14, line 16).

Therefore, lms clearly teaches a cache memory.

Furthermore, lms explains these objects stored in the cache memory. lms

teaches, by way of example, that these objects may take form of JavaBeans (col. 10

line 3) and may be classified as either read-access (RA) or write-access (WA) (Ims at col. 10, line 30-32).

Ims teaches the contents of these objects as specifying them to contain a set of input properties and output properties representing the information to and from the object's corresponding backend data source (Ims, col. 10 line 21-25). The Examiner submits that a [JavaBean] object storing a set of input and output properties as disclosed by Ims teaches "stor[ing] in a correlated form the retrieval condition and the retrieval result." Specifically, Ims teaches the input properties of the object (in a book catalog application) might include category names or book titles to use in *retrieving* available book inventory information (Ims, col. 10 50-53). Ims further teaches the output properties as the beans script may then cause property values such as these to be used to perform a database lookup operation, where the *results* of the lookup are used to populate the object's output properties (Ims, col. 10, line 53-56). Ims even more states the output properties are populated as a result (col. 10 line 63-64). From at least these citations, it is clear that the input properties of the [JavaBean] object are equivalent to the claimed "retrieval condition." In other words, as Ims' input properties are used in the function of a database lookup to get results, that they sufficiently teach the claimed retrieval condition. Further, Ims' output properties clearly describe the claimed retrieval result as Ims explicitly states "the output properties are populated as a result (col. 10 line 63-64). Because these two (input/output) properties are store as an object, they are stored in correlated form (i.e. the retrieval condition is stored with the results in a single entity).

Applicant argues (bottom third of page 8 of the remarks) that lms does not teach "an update processing unit that reads the retrieval condition from the cache memory upon fulfillment of the cache update condition" (i.e. the fourth clause of claims 1 and 11). The Examiner disagrees given the following:

In column 13, line 33, lms teaches a cache manager for caching and managing the objects (i.e. col. 14 line 11-25, et seq.). On way of which an object is maintained is by keeping it up to date and refreshed. lms teaches if a cached object should be become stale (co. 14 line 43)...the cached object is refreshed with a refreshed copy of data values (i.e. re-populating the objects output properties (lms, col. 14 line 55-57). The Examiner submits that in order to refresh the object with a new copy of output properties, the retrieval logic in the execution script of the cached object is executed causing a request to be sent (col. 13 line 53-55). In other words, the Examiner submits that lms executes the input properties of the cached object to obtain a fresh copy of results, and therefore, reads the input properties upon an update condition (e.g. a stale or otherwise invalid copy of data; lms col. 14, line 43).

The Applicant further argues (page 9 of the remarks) that lms does not teach in the fourth clause of claim 1 the retrieving data as the retrieval result from the database using the retrieval condition and finally updating the retrieval result in the cache memory corresponding to the retrieval condition. The Examiner disagrees because as seen in the refreshing operation, disclosed in the paragraph above, it is easily construed that

once lms' object (containing input properties as a retrieval condition and output properties as retrieval results) it refreshed, it is re-populated with a fresh copy of data values (lms, col. 14, lines 55-56). Therefore, lms sufficiently teaches retrieving data as the retrieval result from the database using the retrieval condition. Subsequently, from this refresh operation, the new copy of output properties in the object are updated to teach the claimed updating the retrieval result in the cache memory corresponding to the retrieval condition.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert M. Timblin
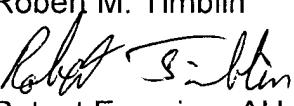
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